Synopsis

for

Ph.D. Registration

Faculty of Commerce and Business Management

Ranchi University, Ranchi

Research Topic

A Study on Agriculture Finance through NABARD and its impact on Agriculture development in Jharkhand-A Case study of Ranchi District

Name of the Supervisor
Dr. Amar Kumar Chaudhary
Associate Professor
University Department of Commerce
& Business Management
Ranchi University, Ranchi

Research Scholar
Rina Mahato
Ph.D. Entrance Test
Roll No-05153
University Department of Commerce &
Business Management
Ranchi University, Ranchi

A Study on Agriculture Finance through NABARD and its impact on Agriculture development in Jharkhand-A Case study of Ranchi District

Introduction

Agriculture, the cornerstone of human civilization, is an intricate tapestry woven from the threads of tradition, innovation, and sustainability. It encompasses a vast array of practices, from the small-scale cultivation of subsistence crops to the large-scale mechanized production of commodities for global markets. At its core, agriculture is the art and science of harnessing the forces of nature to nurture and cultivate life. It is a dynamic and ever-evolving field, shaped by technological advancements, environmental challenges, and socio-economic factors. Throughout history, agriculture has been instrumental in shaping the trajectory of human societies[1]. The transition from nomadic hunter-gatherer lifestyles to settled agricultural communities marked a pivotal moment in our collective journey. The domestication of plants and animals allowed for the establishment of permanent settlements, the development of complex social structures, and the flourishing of culture and civilization. From the fertile banks of the Tigris and Euphrates to the terraced slopes of the Andes, agriculture has left an indelible mark on the landscape of human history.

In the modern era, agriculture stands at the nexus of some of the most pressing challenges facing humanity. With a global population approaching 8 billion and projected to reach 9.7 billion by 2050, the demand for food, fiber, and fuel is greater than ever before[2]. Feeding this burgeoning population while minimizing the environmental impact of agricultural practices is one of the defining challenges of the 21st century. Climate change, soil degradation, water scarcity, and loss of biodiversity pose formidable obstacles to sustainable agriculture, threatening the very foundation of our food systems. In response to these challenges, agriculture is undergoing a profound

[1] Isett Christopher, Miller Stephen (2016), The Social History of Agriculture: From the Origins to the Current Crisis, Rowman & Littlefield Publishers, U.S., Pg-10-17
[2] https://www.un.org/en/global-issues/population

transformation. A growing emphasis on sustainable and regenerative practices is reshaping the way we produce food. Agroecology, permaculture, and organic farming are gaining traction as alternatives to conventional industrial agriculture, offering models that prioritize ecological health, social equity, and economic viability. From agroforestry systems that mimic natural ecosystems to precision agriculture technologies that optimize resource use, innovation is driving the transition to more resilient and sustainable food systems[3]. Moreover, the digital revolution is revolutionizing agriculture in unprecedented ways. The advent of precision farming technologies, such as GPS-guided tractors, drones, and sensor networks, is enabling farmers to monitor and manage their fields with unparalleled precision and efficiency[4]. Big data analytics, artificial intelligence, and machine learning algorithms are unlocking new insights into crop health, soil fertility, and weather patterns, empowering farmers to make data-driven decisions and optimize their yields while minimizing inputs. Yet, for all its promise, the modernization of agriculture also brings with it challenges and risks. The consolidation of land and resources in the hands of agribusiness conglomerates threatens the livelihoods of small-scale farmers and exacerbates socio-economic inequalities. The widespread use of agrochemicals, such as pesticides and synthetic fertilizers, has led to environmental pollution, soil degradation, and adverse health effects. The commodification of seeds and genetic resources undermines agricultural biodiversity and erodes farmers' rights to save and exchange seeds.

To navigate these complexities and build a more equitable and sustainable food system, collaboration and innovation are essential. Farmers, scientists, policymakers, and consumers must work together to co-create solutions that prioritize human well-being and planetary health. Investing in agroecological research, supporting small-scale farmers, and promoting local food systems can help build resilience and diversity in our agricultural landscapes. Embracing indigenous knowledge and traditional farming

[3] Puri Sunil (2007), Agroforestry Systems and Practices, New India Publishing Agency, New Delhi, Pg-29-31

[4] Gibson Jane, Alexander Sara (2019), In Defense of Farmers :The Future of Agriculture in the Shadow of Corporate Power, Nebraska Press, U.S., Pg-51-53

practices can enrich our understanding of sustainable agriculture and foster cultural diversity and resilience.

Agriculture Finance

Agriculture finance plays a vital role in supporting the growth and sustainability of the agricultural sector, which is crucial for ensuring food security, alleviating poverty, and promoting economic development in rural areas. Agriculture finance encompasses a wide range of financial products and services tailored to meet the unique needs of farmers, agribusinesses, and rural communities. From crop loans and insurance to investment in agricultural infrastructure and value chain development, agriculture finance plays a multifaceted role in facilitating agricultural production, marketing, and trade. One of the primary challenges facing agriculture finance is the inherent risk and uncertainty associated with agricultural production[5]. Farmers are exposed to various risks, including weather fluctuations, pest and disease outbreaks, market volatility, and policy changes. These risks can have significant implications for farm income and livelihoods, making it essential for farmers to have access to financial instruments that help them manage risk effectively. Agricultural insurance products, such as crop insurance and livestock insurance, provide farmers with a safety net against crop failures and income losses due to adverse events. By transferring risk from farmers to insurance companies, these products help stabilize farm incomes and promote investment in agriculture.

Access to credit is another critical aspect of agriculture finance, particularly for smallholder farmers who often lack the collateral and credit history required to access traditional bank loans. Microfinance institutions, rural banks, and agricultural cooperatives play a crucial role in providing credit to smallholder farmers, enabling them to invest in seeds, fertilizers, equipment, and other inputs necessary for agricultural production[6]. Agricultural credit programs, such as government-sponsored loan schemes and

[5] Srinivasan, N (2022), State of Agricultural Finance in India, Sage Publications PVT Limited, New Delhi, Pg-07-10
[6] Shivaji (2007), Agricultural Finance by Commercial Banks, A.P.H. Publishing Corporation, New Delhi, Pg-29-31

subsidized interest rates, aim to improve farmers' access to credit and promote inclusive finance in rural areas. In addition to credit, agriculture finance also encompasses investment in agricultural infrastructure and value chain development. Infrastructure investments, such as irrigation systems, rural roads, storage facilities, and market infrastructure, are essential for improving productivity, reducing post-harvest losses, and connecting farmers to markets. Value chain finance initiatives, such as contract farming, warehouse receipt systems, and supply chain financing, help integrate smallholder farmers into agricultural value chains, enabling them to access inputs, services, and markets more efficiently.

Furthermore, agriculture finance plays a critical role in promoting sustainable agriculture and environmental stewardship. Sustainable agriculture practices, such as agroforestry, organic farming, and conservation agriculture, require upfront investments in training, technology, and infrastructure. Agriculture finance mechanisms, such as green loans, impact investments, and carbon finance, provide financial incentives for farmers and agribusinesses to adopt sustainable practices that enhance soil health, conserve water, and mitigate climate change[7]. By aligning financial incentives with environmental objectives, agriculture finance can contribute to the transition towards more resilient and sustainable food systems. However, despite its importance, agriculture finance faces several challenges and constraints that limit its effectiveness in supporting agricultural development. Limited access to finance, particularly for smallholder farmers and women farmers, remains a significant barrier to agricultural growth and poverty reduction in many developing countries. Weak rural financial infrastructure, including inadequate banking services, lack of credit information systems, and high transaction costs, further impede farmers' access to finance and limit the reach of agriculture finance programs.

Moreover, agriculture finance is often characterized by high levels of informality and risk, which can deter commercial banks and financial institutions from engaging in agricultural lending. Weak legal and regulatory

[7] Meena R.S. (2019), Sustainable Agriculture, Scientific Publishers, Rajasthan, Pg-39-45

frameworks, inadequate risk management practices, and uncertain land tenure systems contribute to credit market failures and inhibit the flow of finance to agriculture. Addressing these challenges requires a holistic approach that combines policy reforms, institutional capacity building, and innovative financial instruments tailored to the needs of farmers and rural communities.

In conclusion, agriculture finance is a vital enabler of agricultural development, poverty reduction, and food security. By providing farmers and agribusinesses with access to credit, insurance, and other financial services, agriculture finance helps mitigate risk, unlock investment, and promote inclusive growth in rural areas. However, addressing the challenges facing agriculture finance requires concerted efforts from governments, financial institutions, development agencies, and other stakeholders to build resilient and inclusive financial systems that support sustainable agriculture and rural development.

NABARD & Agriculture of Jharkhand

The National Bank for Agriculture and Rural Development (NABARD) is a key financial institution in India dedicated to promoting rural development and agriculture. Established in 1982, NABARD operates as an apex development bank with a mandate to facilitate credit flow to agriculture and other rural sectors, as well as to foster overall rural prosperity through various developmental initiatives[8]. In the context of Jharkhand, a state known for its rich mineral resources and diverse tribal culture, NABARD plays a significant role in supporting agricultural development and rural livelihoods.

Jharkhand, located in eastern India, is endowed with abundant natural resources, including fertile soils, forests, and water bodies. Agriculture is a vital component of the state's economy, providing livelihoods to a majority of its rural population[9]. However, the agriculture sector in Jharkhand faces numerous challenges, including fragmented landholdings, inadequate irrigation infrastructure, low productivity, and vulnerability to climate change.

[8] Basu Priya (2006), Improving Access to Finance for India's Rural Poor, World Bank, U.S., Pg-101-107

[9] Paty Chittaranjan Kumar (2007), Forest, Government, and Tribe, Concept Publishing Company, New Delhi, Pg-15-19

Additionally, the state's predominantly tribal population, with its unique socio-cultural characteristics, adds another layer of complexity to agricultural development efforts. NABARD's interventions in Jharkhand aim to address these challenges and promote sustainable agricultural practices, enhance rural livelihoods, and improve the overall socio-economic well-being of rural communities. One of NABARD's primary functions is to provide credit and financial assistance to farmers, agricultural entrepreneurs, and rural development institutions. Through its network of Regional Rural Banks (RRBs), cooperative banks, and other financial intermediaries, NABARD channels credit to agriculture and allied sectors, including livestock, fisheries, and agro-processing.

In Jharkhand, NABARD supports various agricultural credit schemes and programs aimed at enhancing farm productivity, income generation, and rural employment. These include crop loans, livestock loans, dairy development schemes, and farm mechanization initiatives. By providing timely and affordable credit to farmers, NABARD helps them access inputs such as seeds, fertilizers, and machinery, thereby enabling them to adopt modern agricultural practices and improve their yields and incomes[10]. Furthermore, NABARD plays a pivotal role in promoting financial inclusion and strengthening rural financial institutions in Jharkhand. Through its capacity building initiatives and technical assistance programs, NABARD helps build the institutional capacity of cooperative banks, self-help groups (SHGs), and microfinance institutions (MFIs) to better serve the financial needs of rural communities. By extending financial literacy and training programs, NABARD empowers farmers and rural entrepreneurs to make informed financial decisions and improve their financial management skills.

In addition to credit support, NABARD also implements various developmental projects and initiatives aimed at augmenting rural infrastructure, natural resource management, and livelihood enhancement in Jharkhand. These include watershed development projects, rural road construction, irrigation schemes, and promotion of sustainable agriculture

[10] Swain Ranjula Bali (2013), The Microfinance Impact, Taylor & Francis, U.K., Pg-45-48

practices such as organic farming and agroforestry. By investing in rural infrastructure and sustainable land management practices, NABARD contributes to improving agricultural productivity, enhancing water security, and mitigating the adverse impacts of climate change on rural livelihoods. Moreover, NABARD facilitates partnerships and collaborations with other stakeholders, including government agencies, non-governmental organizations (NGOs), research institutions, and private sector entities, to leverage resources and expertise for rural development in Jharkhand. By fostering multi-stakeholder partnerships and promoting innovation and knowledge exchange, NABARD enhances the effectiveness and impact of its interventions in the agriculture sector and rural economy.

Role of NABARD

The National Bank for Agriculture and Rural Development (NABARD) is an apex development financial institution in India, established in 1982 with the primary mandate of fostering rural development and supporting agriculture. NABARD plays a multifaceted role in promoting inclusive growth, rural prosperity, and sustainable development across the country. Its wide-ranging functions encompass financial intermediation, capacity building, policy advocacy, and developmental initiatives aimed at addressing the diverse needs of rural communities. At the heart of NABARD's role is its function as a refinancing agency for institutions engaged in agriculture and rural development. NABARD refinances commercial banks, regional rural banks (RRBs), cooperative banks, and other financial institutions, thereby ensuring the availability of credit to agriculture and allied sectors at concessional rates. By providing refinance facilities for agricultural loans, livestock loans, rural infrastructure projects, and other rural credit programs, NABARD facilitates the flow of credit to farmers, rural entrepreneurs, and rural development institutions, thereby catalyzing rural economic growth and poverty alleviation[11].

[11] Rajkumar K. Prabhakar (2008), Agricultural Finance in India: The Role of NABARD, New Century Publications, New Delhi, Pg-13-19

Moreover, NABARD serves as a catalyst for institutional development and capacity building in the rural financial sector. Through its extensive network of training institutes, NABARD provides capacity building programs, technical assistance, and knowledge-sharing platforms for various stakeholders, including bankers, government officials, farmers, and rural entrepreneurs. These capacity building initiatives aim to enhance the skills, knowledge, and professionalism of rural finance professionals and empower them to better serve the financial needs of rural communities. Additionally, NABARD plays a crucial role in policy advocacy and research in the fields of agriculture, rural development, and rural finance. Through its research and policy analysis initiatives, NABARD generates valuable insights and recommendations for policymakers, regulators, and development practitioners to formulate evidence-based policies and strategies for promoting inclusive and sustainable rural development. NABARD's advocacy efforts also focus on promoting innovations, best practices, and policy reforms to address emerging challenges and opportunities in the agriculture and rural sectors. Furthermore, NABARD implements a wide array of developmental programs and initiatives aimed at promoting rural livelihoods, natural resource management, and rural infrastructure development. These initiatives include watershed development projects, rural electrification schemes, rural road construction, promotion of sustainable agriculture practices, and livelihood enhancement programs for marginalized communities. By investing in rural infrastructure, promoting sustainable agriculture, and empowering rural communities, NABARD contributes to enhancing the quality of life and well-being of rural populations.

In recent years, NABARD has also been actively involved in promoting digital financial inclusion and technology-driven solutions for rural development. Through initiatives such as the Rural Infrastructure Development Fund (RIDF) and the Financial Inclusion Fund (FIF), NABARD supports the deployment of digital technologies, mobile banking services, and innovative financial products to expand access to financial services in remote and underserved rural areas. By leveraging technology and digital platforms, NABARD aims to bridge the digital divide and promote financial empowerment among rural communities. Moreover, NABARD plays a pivotal

role in promoting sustainable agriculture and environmental conservation through its various initiatives and programs. It supports organic farming, agroforestry, watershed management, and sustainable land use practices to enhance agricultural productivity, conserve natural resources, and mitigate climate change impacts. NABARD's efforts in promoting sustainable agriculture contribute to building resilience in rural communities and fostering environmental sustainability in agriculture.

Jharkhand at a Glance Vis-a vis Ranchi district NABARD in Jharkhand

Jharkhand, situated in eastern India, is a state characterized by its rich mineral resources, diverse tribal culture, and lush greenery. Created in the year 2000, after its bifurcation from Bihar, Jharkhand is known for its natural beauty and vibrant traditions. Ranchi, the capital city of Jharkhand, is one of its most prominent districts, serving as the administrative, cultural, and economic hub of the state[12]. NABARD, the National Bank for Agriculture and Rural Development, plays a pivotal role in supporting rural development and agricultural growth in Jharkhand, with a significant focus on Ranchi district. Jharkhand, with its abundant natural resources and fertile land, has immense potential for agricultural development. However, the state faces several challenges, including fragmented landholdings, inadequate irrigation facilities, low productivity, and vulnerability to climate change. Additionally, the predominantly tribal population, with its unique socio-cultural identity, adds another layer of complexity to agricultural development efforts in the state.

Ranchi district, situated in the southern part of Jharkhand, is known for its picturesque landscapes, dense forests, and moderate climate. It is home to a diverse population comprising tribal communities, as well as people from various other ethnic backgrounds. Ranchi serves as the political and administrative nerve center of Jharkhand, hosting government offices, educational institutions, and commercial establishments. Despite its urban character, Ranchi district retains a significant rural hinterland, where agriculture remains the primary occupation of the people[13].

[12] https://www.jharkhand.gov.in/home/AboutState
[13] https://ranchi.nic.in/about-district

NABARD's presence in Jharkhand, including Ranchi district, is instrumental in driving rural development and promoting agricultural growth. NABARD channels financial resources to various stakeholders, including farmers, rural entrepreneurs, self-help groups (SHGs), cooperatives, and financial institutions, to support agriculture and allied sectors. In Ranchi district, NABARD's interventions are tailored to address the specific needs and priorities of rural communities, with a focus on enhancing farm productivity, promoting sustainable agriculture practices, and improving rural livelihoods. One of NABARD's key functions in Jharkhand, including Ranchi district, is to provide credit support to farmers and rural entrepreneurs through its refinancing facilities. NABARD refinances commercial banks, regional rural banks (RRBs), cooperative banks, and other financial institutions, thereby ensuring the availability of credit for agriculture, livestock, rural infrastructure, and other rural development activities. In Ranchi district, NABARD's refinance support enables farmers to access timely and affordable credit for purchasing agricultural inputs, investing in farm mechanization, and undertaking allied activities such as dairy farming and poultry rearing.

Moreover, NABARD plays a crucial role in promoting financial inclusion and strengthening rural financial institutions in Ranchi district. Through its capacity building initiatives, technical assistance programs, and financial literacy campaigns, NABARD empowers rural communities to access and utilize financial services effectively. By supporting the formation and strengthening of SHGs, producer groups, and village-level institutions, NABARD fosters grassroots-level financial intermediation and promotes community-led development initiatives in rural areas. Additionally, NABARD implements various developmental projects and initiatives aimed at enhancing rural infrastructure, natural resource management, and livelihood opportunities in Ranchi district. These initiatives include watershed development projects, rural road construction, irrigation schemes, and promotion of sustainable agriculture practices. By investing in rural infrastructure and promoting sustainable livelihood options, NABARD contributes to improving the quality of life and economic well-being of rural communities in Ranchi district.

Furthermore, NABARD's role extends beyond financial intermediation to encompass policy advocacy, research, and knowledge dissemination in the field of rural development and agriculture. Through its research studies, policy analyses, and stakeholder consultations, NABARD generates valuable insights and recommendations for policymakers, development practitioners, and other stakeholders to formulate evidence-based policies and strategies for rural development. In Ranchi district, NABARD's advocacy efforts focus on promoting innovations, best practices, and policy reforms to address the emerging challenges and opportunities in agriculture and rural development.

NABARD and its impact on agriculture development in Jharkhand

The National Bank for Agriculture and Rural Development (NABARD) has had a profound and multifaceted impact on agricultural development in Jharkhand, a state in eastern India that faces unique challenges and opportunities. Established in 1982, NABARD’s primary mission is to promote sustainable and equitable agriculture and rural development, making it a cornerstone institution in the efforts to enhance the livelihoods of rural communities, particularly in states like Jharkhand where agriculture forms the backbone of the economy.

Financial Support and Credit Facilities

One of the most significant ways in which NABARD influences agricultural development in Jharkhand is through the provision of financial support and credit facilities. The institution offers refinance to banks and cooperatives that provide loans to farmers. These loans are critical for various agricultural activities, including crop production, irrigation, purchase of farm machinery, and other inputs. By facilitating access to affordable credit, NABARD helps mitigate the financial constraints that often hinder farmers' ability to invest in and improve their farming operations. This financial support is crucial in a state like Jharkhand, where small and marginal farmers predominate, and access to capital can be a significant barrier to adopting modern farming techniques and improving productivity.

Infrastructure Development

Infrastructure development is another key area where NABARD's impact is highly visible. Through the Rural Infrastructure Development Fund (RIDF), NABARD finances the construction of essential rural infrastructure, including roads, bridges, irrigation systems, and storage facilities. In Jharkhand, the improvement of rural infrastructure is particularly important given the state's challenging terrain and dispersed population. Better infrastructure facilitates easier and more efficient transportation of goods and produce, which is vital for farmers to access markets and sell their products at fair prices. Improved irrigation infrastructure also ensures that farmers have a reliable water supply, which is crucial for increasing agricultural productivity and resilience against droughts.

Promoting Sustainable Agriculture

NABARD’s commitment to promoting sustainable agricultural practices is another critical aspect of its work in Jharkhand. The bank supports various initiatives that encourage the adoption of environmentally friendly and resource-efficient farming methods. These include projects that focus on soil health management, water conservation, organic farming, and the use of renewable energy sources in agriculture. For example, NABARD funds watershed development projects that help in managing water resources more effectively, improving soil moisture and preventing erosion. Such projects are particularly beneficial in Jharkhand, where water scarcity can be a significant issue.

Capacity Building and Skill Development

In addition to financial and infrastructural support, NABARD places a strong emphasis on capacity building and skill development. The institution organizes training programs and workshops for farmers to educate them about modern farming techniques, pest management, and post-harvest processing. These programs aim to enhance farmers' knowledge and skills, enabling them to increase productivity and improve the quality of their produce. NABARD also supports the formation and strengthening of Self-Help Groups (SHGs)

and Farmer Producer Organizations (FPOs), which empower farmers by providing them with a platform for collective bargaining and access to markets and inputs.

Supporting Agribusiness and Rural Enterprises

NABARD's role extends beyond traditional agriculture to support agribusiness and rural enterprises. By financing agro-processing units and rural industries, NABARD helps create value addition opportunities for agricultural produce, which can lead to higher income for farmers. In Jharkhand, where there is a high potential for processing of horticultural crops, dairy, and other agro-products, NABARD's support in this area is crucial for economic diversification and employment generation in rural areas.

Enhancing Financial Inclusion

Financial inclusion is a critical component of NABARD's strategy to uplift rural economies. In Jharkhand, NABARD has been instrumental in promoting financial literacy and expanding the reach of banking services to remote and underserved areas. Initiatives such as the establishment of rural banks and financial literacy programs aim to ensure that even the most marginalized communities have access to banking services, credit, and insurance. This not only helps in reducing rural poverty but also encourages savings and investments in agriculture.

Research and Development

NABARD also invests in research and development to drive innovation in the agricultural sector. The institution supports studies and pilot projects that explore new technologies and practices tailored to the specific agro-climatic conditions of Jharkhand. This research helps in identifying effective strategies for crop improvement, pest control, and resource management, which can then be scaled up to benefit a larger number of farmers.

Review of Literature

The review of literature holds paramount importance in framing the context and rationale for present study. Firstly, it provides a comprehensive

understanding of the existing body of knowledge, theories, and empirical evidence related to agricultural finance, rural development, and the role of financial institutions like NABARD. By synthesizing previous research findings, theoretical frameworks, and conceptual models, the review of literature helps establish a solid foundation upon which my study builds. Secondly, the review of literature enables the identification of gaps, inconsistencies, and unanswered questions in the literature, thereby guiding the formulation of research questions, objectives, and hypotheses. By critically evaluating previous studies and identifying areas where knowledge is lacking or where contradictory findings exist, the review of literature informs the specific focus and contributions of my research. Overall, the review of literature plays a crucial role in shaping the research agenda, providing theoretical and empirical support for my study, and highlighting avenues for further inquiry and exploration in the field of agricultural finance and rural development in Jharkhand.

I have read several books, research paper and articles for the present study some of the views of scholars on the related topic are as follows:-

R.L. Pitale (2007)[14], As per the author, the Green Revolution strategy transformed India's agriculture sector significantly from 1970 to 1990, leading to self-sufficiency in food grains and agricultural commodities. Despite this success, challenges have emerged since the 1990s, with farmers experiencing declining incomes and a distressing trend of suicides. The book underscores the necessity for a policy shift from focusing solely on farm production to prioritizing farmers' incomes, which has not received adequate attention compared to developed countries. It aims to propose a tailored income policy for India's densely populated rural sector, considering the diverse profiles of farms and farmers. Understanding the structural complexities and income levels of farmers becomes pivotal, despite limitations in data availability. The multitude of farmers producing various commodities adds complexity to crafting a uniform policy. The primary hindrance to increasing farmers' income in India is attributed to the small size of farms. To address this, the

[14] Pitale R.L. (2007), India Rich Agriculture Poor Farmers: Income Policy for Farmers, Daya Publishing House, New Delhi, Pg-05-11

book advocates for partnership farming as a means to unite small and large farmers for commercial farm management, thereby augmenting income. The proposed income policy comprises both direct and indirect monetary incentives, customized based on the agricultural development levels across different states. To implement such a policy effectively, sustained financial resources are indispensable. The book suggests utilizing a portion of India's substantial foreign exchange reserves to fund the income policy without risking inflation. Recognizing that the competitiveness of Indian agriculture in global trade hinges on farmers' income generation, the book outlines strategies to navigate the challenges posed by the World Trade Organization (WTO) agreements. It urges the Indian government to pivot its policy focus from production economics to income economics to address the plight of its farmers adequately. The chapters delve into various aspects, including the geographical and structural landscape of Indian farming, partnership farming models, costing and pricing mechanisms, agricultural marketing reforms, and infrastructure investments using foreign exchange reserves, culminating in a comprehensive strategy to embrace WTO challenges while prioritizing farmers' well-being.

Bidhan Chandra Roy, Debashis Sarkar, Madhusudan Ghosh (2014)[15], As per the author, this edited book explores the multifaceted landscape of agricultural diversification in Eastern India. In recent years, Indian agriculture has undergone a notable shift, transitioning from traditional cereal crops to high-value crops and livestock products, mirroring evolving consumption patterns. Amidst the backdrop of a changing economic regime, the agricultural sector grapples with issues such as population growth, unemployment, poverty, dwindling investments, and environmental degradation. The book delves into these pressing concerns within the context of India's broader economic restructuring, marked by a transition from agriculture to non-agricultural sectors, including industry and services, and a corresponding shift in cropping patterns. Offering insights into the complexities of agricultural diversification, the book serves as a valuable resource for educators,

[15] Roy Bidhan Chandra, Sarkar Debashis, Ghosh Madhusudan (2014), Diversification of Agriculture in Eastern India, Springer India, U.S., Pg-53-57

researchers, policymakers, students, and general readers interested in the dynamics of agricultural development in India. Through its comprehensive exploration of the rationale, challenges, and potential solutions surrounding agricultural diversification, the book contributes to a deeper understanding of the agricultural landscape in Eastern India and its implications for food security, livelihoods, and sustainable development.

Goswami Binoy, Bezbaruah Madhurjya Prasad, Mandal Raju (2017)[16], As per the author's narrative, the Green Revolution stands as a pivotal moment in India's agricultural history, transforming the nation from a land plagued by chronic food shortages to one of self-sufficiency in the span of a decade from 1968 to 1978. However, the subsequent decade from 1995 to 2005 saw a disturbing rise in farmer suicides across various regions, signaling a deep-seated crisis within the agricultural sector. The book delves into the complexities of this "agrarian crisis," highlighting the immense strain and stress that had accumulated over time despite the earlier successes of the Green Revolution. Yet, amidst this turmoil, the book also underscores the sector's inherent resilience and capacity for innovation, which allowed it not only to endure the crisis but to emerge transformed and revitalized. Now, the pressing need is to cultivate an environment conducive to fostering resilience and addressing the dual challenges of increasing farm income and mitigating the impacts of climate change. To achieve this, the book proposes a multifaceted intervention strategy. This strategy encompasses reviving public investment in irrigation, adapting agrarian institutions to contemporary realities, bolstering market institutions to enhance farm-market linkages and financial access for farmers, and laying the groundwork for the adoption of technological innovations. By embracing such a holistic policy paradigm, the agricultural sector can chart a course towards sustainability and prosperity in the face of evolving challenges.

[16] Binoy Goswami, Prasad Bezbaruah Madhurjya, Raju Mandal (2017), Indian Agriculture After the Green Revolution, Changes and Challenges, Taylor & Francis, U.K.,Pg-19-23

K. Prabhakar Rajkumar (2008)[17], As per the author's perspective, the foundation of agricultural production in India rests upon the shoulders of millions of small-scale farmers. However, the lack of adequate financial resources often deprives these farmers of access to improved seeds, fertilizers, and advanced agricultural techniques. Thus, ensuring that farmers' financial needs are met becomes paramount. The timely provision of sufficient credit at fair interest rates emerges as a crucial component of agricultural development. However, it's imperative that this credit assistance is tied to specific productive activities or essential cultivation costs. Established in 1982, the National Bank for Agriculture and Rural Development (NABARD) assumes a pivotal role as India's apex institution responsible for policy formulation, planning, and implementation concerning agricultural credit and rural economic activities. Serving as a central refinancing agency for institutions disbursing investment and production credit in rural areas, NABARD plays a vital role in facilitating agricultural finance across India. This book not only elucidates the intricate system of agricultural finance in India but also offers a comprehensive analysis of NABARD's role and contributions to the sector's development. Through a nuanced exploration, it sheds light on the mechanisms through which NABARD channels financial resources to empower farmers and drive rural economic growth.

Ashish Kant Chaudhari (2013)[18], As per the author's perspective, rural transformation emerges as a pivotal strategy aimed at uplifting the economic and social conditions of the rural populace, ensuring that the benefits of development extend to the majority residing in rural areas. NABARD's various developmental strategies, spanning states like Uttar Pradesh, play a crucial role in facilitating this transformation by leveraging its refinancing schemes to elevate living standards in rural regions. Effecting rural transformation necessitates a paradigm shift towards enhancing productivity within the framework of rural development, thereby enabling impoverished communities to secure fair wages and enhance their quality of life. Thus, a comprehensive

[17] Rajkumar K. Prabhakar (2008), Agricultural Finance in India: The Role of NABARD, New Century Publications, New Delhi, Pg-61-63

[18] Chaudhari Ashish Kant (2013), Role Of Nabard In Rural Transformation, Lap Lambert Academic Publishing GmbH KG, Germany, Pg-33-36

assessment of NABARD's role as a key player and contributor in rural transformation becomes imperative. This entails scrutinizing the performance of NABARD's credit provisions and rural schemes, pinpointing areas of effectiveness and areas requiring improvement. Through such an analysis, the study aims to unearth both the strengths and weaknesses of NABARD's policies in fostering rural transformation, thereby informing future strategies for sustainable rural development and inclusive growth.

Ranjula Bali Swain (2013)[19], As per the author's insights, the transformative power of financial inclusion through microfinance has emerged as a potent force in uplifting the livelihoods of impoverished farmers, rural non-farm enterprises, and other vulnerable segments of society. Leveraging the extensive network of rural bank branches across India, the National Bank of Agriculture and Rural Development (NABARD) has played a pivotal role in extending financial services to up to 97 million poor households through its Self Help Group Bank Linkage Programme (SBLP) by March 2010. Recognized by policymakers as a sustainable approach to delivering financial services to the underprivileged, Self Help Groups (SHGs) have been hailed as a cornerstone of financial inclusion efforts. This book embarks on a comprehensive scientific evaluation of the SBLP's impact on member households, traversing a spectrum of pertinent topics. From delving into the landscape of the rural financial sector in India to dissecting the historical evolution and operational framework of the SBLP, the book navigates through methodologies for assessing impact, economic and social implications of microfinance, and its role in asset-building and poverty alleviation. Central to the discourse are discussions on women's empowerment, human capital accumulation through training, and the policy imperatives gleaned from lessons learned. Empirical findings reveal significant reductions in vulnerability among mature SHG members, particularly in villages with robust infrastructure and SHGs facilitated by NGOs and linked by banks. Moreover, there is a discernible increase in the empowerment of female participants, with economic impacts of the SBLP proving particularly empowering. Enhanced autonomy and shifts in social attitudes further bolster female empowerment,

[19] Swain Ranjula Bali (2013), The Microfinance Impact, Taylor & Francis, U.K., Pg-59-61

while training, especially in business acumen, positively influences asset accumulation. However, the impact of training on income remains nuanced, indicating opportunities for improvement through infrastructure enhancements, refined linkage models, and optimized training modalities. Through its meticulous examination of these dynamics, the book offers valuable insights into the transformative potential of microfinance and informs policy interventions aimed at fostering sustainable development and inclusive growth.

Importance of the Study

The importance of the present study lies in its potential to contribute valuable insights into the dynamics of agricultural finance, rural development, and institutional interventions in a specific geographical context. Here's why this study is significant:

Despite the critical role of institutions like NABARD in promoting rural development and agricultural finance, there is a dearth of comprehensive studies focusing on their effectiveness at the grassroots level, especially in regions like Jharkhand. Present research will help bridge this gap by providing empirical evidence and analysis specific to the case of Ranchi District. By conducting a case study of Ranchi District, I will have the opportunity to delve deep into the practical implementation of NABARD's policies and programs in a real-world setting. This will enable a nuanced understanding of NABARD's role, its strengths, challenges, and the actual impact of its interventions on farmers, rural communities, and agricultural development in Jharkhand. The findings of present research can inform policy formulation, program design, and institutional practices aimed at enhancing agricultural finance and rural development in Jharkhand and similar regions. By identifying best practices, lessons learned, and areas for improvement, this study can guide policymakers, development practitioners, and financial institutions in optimizing their strategies and interventions.

Present research has the potential to empower various stakeholders, including policymakers, government agencies, financial institutions, farmers, and rural communities, by providing them with evidence-based insights and recommendations. By highlighting successful models, innovative approaches,

and opportunities for collaboration, the study can contribute to empowering stakeholders to make informed decisions and take proactive steps towards sustainable rural development. Presented research will add to the body of knowledge in the fields of agricultural economics, rural development, and institutional finance. By documenting the methodology, findings, and conclusions in a scholarly manner, it will contribute to academic discourse, enriching the understanding of the complex interactions between financial institutions, agricultural practices, and rural livelihoods. Through a comprehensive analysis of NABARD's role in agricultural finance in Ranchi District, this research can shed light on the opportunities and challenges associated with inclusive growth in rural areas. By identifying barriers to access, equity issues, and potential pathways for inclusive development, study can contribute to promoting economic empowerment and social inclusion among marginalized communities in Jharkhand.

Objectives of the research study:

1. To assess the effectiveness of NABARD's agricultural finance programs in promoting access to credit among farmers in Ranchi District, Jharkhand.
2. To analyze the impact of NABARD's interventions on the adoption of modern agricultural practices and technologies among farmers in Ranchi District.
3. To evaluate the role of NABARD in enhancing rural livelihoods and socio-economic development in Ranchi District through its agricultural finance initiatives.
4. To identify key challenges and constraints faced by NABARD in implementing agricultural finance programs in Ranchi District and suggest policy recommendations for improving their effectiveness.

Hypothesis

The research will take the following null hypothesis:-

H01 NABARD's agricultural finance programs have positively influenced farmers' access to credit in Ranchi District, leading to increased agricultural productivity and income levels.

H02 NABARD's interventions have contributed to the adoption of modern agricultural practices and technologies by farmers in Ranchi District, resulting in improved efficiency, sustainability, and resilience of agricultural production systems.

H03 NABARD's agricultural finance initiatives have played a significant role in enhancing rural livelihoods, reducing poverty, and promoting socio-economic development in Ranchi District, thereby contributing to overall rural prosperity.

Statement of the Problem

The agricultural sector in Jharkhand, particularly in Ranchi District, is central to the state's economy, sustaining a significant portion of its rural populace. However, challenges such as limited access to credit, inadequate infrastructure, low productivity, and susceptibility to climate change hinder its full potential. In addressing these issues, the National Bank for Agriculture and Rural Development (NABARD) assumes a pivotal role by facilitating access to credit, promoting sustainable agricultural practices, and fostering rural development. Despite NABARD's active involvement in agricultural finance and rural development initiatives across India, including Jharkhand, there remains a dearth of comprehensive studies assessing its efficacy at the grassroots level, particularly in Ranchi District. Therefore, the problem at hand is to critically examine NABARD's role in agricultural finance in Jharkhand, specifically in Ranchi District, and evaluate the impact of its interventions on farmers' access to credit, adoption of modern agricultural practices, and overall socio-economic development in the region. By addressing these questions, this research aims to provide valuable insights into NABARD's contributions, contribute to existing knowledge on rural development and institutional finance, and inform policy and practice for inclusive and sustainable agricultural growth in Jharkhand.

Research Methodology

Data will be collected from both primary and secondary sources. Primary data will be gathered through structured questionnaires or schedules administered to farmers, NABARD officials, and other relevant stakeholders

in Ranchi District. Secondary data will be obtained from existing literature, reports, documents, and databases related to agricultural finance, rural development, and NABARD's activities in Jharkhand. A structured questionnaire or schedule will be developed to collect primary data from farmers, NABARD officials, and other stakeholders. The questionnaire will include both closed-ended and open-ended questions, covering topics such as farmers' access to credit, adoption of modern agricultural practices, perception of NABARD's interventions, and socio-economic indicators.

The study will utilize a case study approach to investigate the specific context of Ranchi District and examine the role of NABARD within this particular setting. Through in-depth analysis of NABARD's interventions, policies, and outcomes in Ranchi District, the study will uncover insights into the dynamics of agricultural finance and rural development in the region. For the present study total 375 samples will be selected. Simple random sampling will be employed to select a representative sample of farmers (300), agricultural stakeholders (50), and NABARD officials (25) from Ranchi District. This sampling technique ensures that each individual or entity in the population has an equal chance of being selected, thereby minimizing bias and enhancing the generalizability of the findings.

Data analysis will be conducted using SPSS, a statistical software package widely used for analyzing quantitative data. Descriptive statistics, inferential statistics, correlation analysis, and regression analysis will be performed to analyze the relationship between variables, test hypotheses, and draw conclusions from the data collected. By employing these research methodologies, the study aims to provide a comprehensive understanding of A Study on Agriculture finance through NABARD and its impact on agriculture development in Jharkhand-A case study of Ranchi District, and contribute to the body of knowledge on rural development, institutional finance, and sustainable agriculture.

The research methodology for present study holds paramount importance in ensuring the validity, reliability, and credibility of my study. By adhering to established research protocols and procedures, my methodology

will guide the systematic investigation of the role of NABARD in agricultural finance within the specific context of Ranchi District. Through the utilization of descriptive research design, case study approach, and simple random sampling techniques, I will gather both qualitative and quantitative data from primary and secondary sources. This comprehensive approach will enable me to analyze the effectiveness of NABARD's interventions, assess their impact on farmers' access to credit and adoption of modern agricultural practices, and evaluate their contribution to rural livelihoods and socio-economic development in the region. The structured questionnaire or schedule, coupled with statistical analysis, will facilitate rigorous data collection and interpretation, ensuring robust findings and meaningful insights.

The research methodology for this Ph.D. study will adhere to the scientific method, which involves systematic observation, experimentation, and analysis to generate empirical evidence and draw valid conclusions. This approach ensures objectivity, reliability, and validity in the research process. A descriptive research design will be employed to systematically describe and analyze A Study on Agriculture finance through NABARD and its impact on agriculture development in Jharkhand-A case study of Ranchi District. This design allows for the collection of qualitative and quantitative data to provide a comprehensive understanding of the research problem and its associated variables.

Limitation of the study

Limitations inherent in my research topic "A Study on Agriculture finance through NABARD and its impact on agriculture development in Jharkhand-A case study of Ranchi District" should be acknowledged to provide a clear understanding of the study's scope and potential implications. Firstly, the researcher has taken the case study on Ranchi District which comprises 18 blocks. The researcher will take selected blocks such as Ormanjhi, Angara, Kanke, Ratu and Silli Block. The sample size around 300 farmers which will be collected from above mentioned blocks vis-à-vis agriculture finance through NABARD and its impact on agriculture development on the said region. Secondly, despite efforts to ensure random

sampling, the study may encounter sampling bias, especially if certain groups of farmers or stakeholders are underrepresented or if there are challenges in accessing certain segments of the population. Moreover, the reliance on self-reported data through questionnaires or interviews may introduce response bias or social desirability bias, affecting the accuracy and reliability of the findings. Lastly, limitations related to the availability and quality of secondary data sources, such as reports and documents from NABARD and other agencies, may constrain the depth of the analysis and interpretation. Despite these limitations, addressing them transparently will contribute to a more nuanced understanding of the study's findings and their potential implications for agricultural finance and rural development in Jharkhand.

Tentative Chapeterization

1. Introduction & Review of Literature
2. NABARD and Agriculture Finance-An Overview
3. Impact of agriculture finance in Socio-Economic Condition of farmer in Ranchi District
4. Data Collection, Analysis & Hypothesis testing
5. Summary, Findings and Recommendations

Bibliography

- Isett Christopher, Miller Stephen (2016), The Social History of Agriculture: From the Origins to the Current Crisis, Rowman & Littlefield Publishers, U.S.
- https://www.un.org/en/global-issues/population
- Puri Sunil (2007), Agroforestry Systems and Practices, New India Publishing Agency, New Delhi
- Gibson Jane, Alexander Sara (2019), In Defense of Farmers :The Future of Agriculture in the Shadow of Corporate Power, Nebraska Press, U.S.
- Srinivasan, N (2022), State of Agricultural Finance in India, Sage Publications PVT Limited, New Delhi
- Shivaji (2007), Agricultural Finance by Commercial Banks, A.P.H. Publishing Corporation, New Delhi
- Meena R.S. (2019), Sustainable Agriculture, Scientific Publishers, Rajasthan
- Basu Priya (2006), Improving Access to Finance for India's Rural Poor, World Bank, U.S.
- Paty Chittaranjan Kumar (2007), Forest, Government, and Tribe, Concept Publishing Company, New Delhi
- Swain Ranjula Bali (2013), The Microfinance Impact, Taylor & Francis, U.K.
- Rajkumar K. Prabhakar (2008), Agricultural Finance in India: The Role of NABARD, New Century Publications, New Delhi
- https://www.jharkhand.gov.in/
- https://ranchi.nic.in/
- Pitale R.L. (2007), India Rich Agriculture Poor Farmers: Income Policy for Farmers, Daya Publishing House, New Delhi

- Roy Bidhan Chandra, Sarkar Debashis, Ghosh Madhusudan (2014), Diversification of Agriculture in Eastern India, Springer India, U.S.
- Binoy Goswami, Prasad Bezbaruah Madhurjya, Raju Mandal (2017), Indian Agriculture After the Green Revolution, Changes and Challenges, Taylor & Francis, U.K.
- Rajkumar K. Prabhakar (2008), Agricultural Finance in India: The Role of NABARD, New Century Publications, New Delhi
- Chaudhari Ashish Kant (2013), Role Of Nabard In Rural Transformation, Lap Lambert Academic Publishing GmbH KG, Germany
- Swain Ranjula Bali (2013), The Microfinance Impact, Taylor & Francis, U.K.

Name of the Supervisor
Dr. Amar Kumar Chaudhary
Associate Professor
University Department of Commerce & Business Management
Ranchi University, Ranchi

Research Scholar
Rina Mahato
Ph.D. Entrance Test
Roll No-05153
University Department of Commerce & Business Management
Ranchi University, Ranchi